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09/734,635	12/12/2000	Hidetaka Oka	A-22141/US/A/CGJ 118	4752

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EXAMINER

CLARKE, YVETTE M

ART UNIT	PAPER NUMBER
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1752

DATE MAILED: 08/27/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/734,635

Applicant(s)

OKA ET AL.

Examiner

Yvette M Clarke

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2000.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6-7, 10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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### DETAILED ACTION

This is written in reference to application number 09/734635 filed on December 12, 2000.

### NOTICE

1. The papers filed on *June 4, 2002* (certificate of mailing dated *May 24, 2002*) have not been made part of the permanent records of the United States Patent and Trademark Office (Office) for this application (37 CFR 1.52(a)) because of damage from the United States Postal Service irradiation process. The above-identified papers, however, were not so damaged as to preclude the USPTO from making a legible copy of such papers. Therefore, the Office has made a copy of these papers, substituted them for the originals in the file, and stamped that copy:

### COPY OF PAPERS ORIGINALLY FILED

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If applicant wants to review the accuracy of the Office's copy of such papers, applicant may either inspect the application (37 CFR 1.14(d)) or may request a copy of the Office's records of such papers (*i.e.*, a copy of the copy made by the Office) from the Office of Public Records for the fee specified in 37 CFR 1.19(b)(4). Please do **not** call the Technology Center's Customer Service Center to inquiry about the completeness or accuracy of Office's copy of the above-identified papers, as the Technology Center's Customer Service Center will **not** be able to provide this service.

If applicant does not consider the Office's copy of such papers to be accurate, applicant must provide a copy of the above-identified papers (except for any U.S. or foreign patent documents submitted with the above-identified papers) with a statement that such copy is a complete and accurate copy of the originally submitted documents. If applicant provides such a copy of the above-identified papers and statement within **THREE MONTHS** of the mail date of this Office action, the Office will add the original mailroom date and use the copy provided by applicant as the permanent Office record of the above-identified papers in place of the copy made by the Office. Otherwise, the Office's copy will be used as the permanent Office record of the above-identified papers (*i.e.*, the Office will use the copy of the above-identified papers made by the Office for examination and all other purposes). This three-month period is not extendable.

### *Information Disclosure Statement*

2. The Information Disclosure Statements filed on February 13, 2002, March 21, 2002 and June 4, 2002 have been entered and fully considered.

*Claim Objections*

3. Claim 9 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 9 set forth that component (D) is present in the amount of 0.015-120 parts by weight. However, claim 7, from which it depends, does not require a (D) component. The examiner believes the claim should depend on instant claim 8.

*Claim Rejections - 35 USC § 112*

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims as written are confusing in regard to the definition of Ar<sub>1</sub>. The first part of the definition needs to be clarified by separating the alternative groups with an "or". For example, lines 10-11 of instant claim 1 should read, "...or substituted 1 to 12 times by halogen, C<sub>1</sub>-C<sub>20</sub> alkyl, benzyl, C<sub>1</sub>-C<sub>20</sub> alkanoyl or C<sub>3</sub>-C<sub>8</sub> cycloalkyl;" The second part of the said definition renders the claims indefinite. The examiner is unclear if (1) the Ar<sub>1</sub> is a C<sub>3</sub>-C<sub>9</sub> heteroaryl only when R<sub>1</sub> is acetyl or if (2) when R<sub>1</sub> is acetyl, the said heteroaryl group is unsubstituted or substituted. The second part of the definition also redefines variables set forth in the first part of the definition (see l. 13-14 and 23-24). The examiner is unclear as to what the applicant is claiming.

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6. The examiner has interpreted claim 1 to present one large Markush group wherein Ar<sub>1</sub> is a C<sub>6</sub>-C<sub>20</sub> aryl, C<sub>6</sub>-C<sub>20</sub> aryloyl or a C<sub>3</sub>-C<sub>9</sub> heteroaryl, which can be unsubstituted or substituted with any of the listed compounds.

#### *Response to Arguments*

7. Applicants argue that the claims 1-18 are space efficient and sufficiently clear for one skill in the art to understand. Applicants further argue that the other aspects are formalistic in nature and don't diminish the clarity of the claims. The examiner maintains her position that the claims as written are unclear. The examiner attempts to clarify her position by re-writing the rejection as set forth above.

#### *Double Patenting*

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1, 6-7 and 17 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 6, 11-12 and 17 of copending Application No. 09/734625 (US 2001/0012596). Although the conflicting claims are not identical, they are not patentably distinct from each other because one of ordinary

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skill in the art would have been motivated to develop a photopolymerizable composition comprising (a) at least one ethylenically unsaturated photopolymerizable compound, (b) as a photoinitiator at least one compound of formula (I) or (II) and a binder polymer (cl. 11) as taught by the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

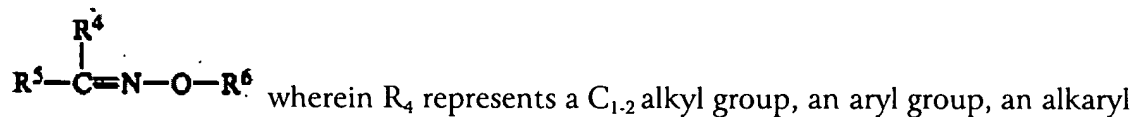
***Claim Rejections - 35 USC § 102***

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-10, 12-16 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Laridon et al. (US 4282309A). Laridon teaches a photosensitive composition suited for the production of polymer resist images comprising a mixture of (1) a photopolymerizable ethylenically unsaturated compound, (2) at least one oxime ester photopolymerization initiator, and (3) at least one sensitizer (abstract). Specific oxime esters are represented by the formulae:



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unsubstituted acyl group.  $R_6$  represents a substituted or unsubstituted acyl group (c. 2, l. 44-68). It is the examiner's position that when  $R_5$  is hydrogen, the limitations of claimed formula (I) are met. The photosensitive recording composition of the taught invention can be coated in the form of a layer on a support (c. 6, l. 3-5). It may comprise one or more ethylenically unsaturated polymerizable compounds such as styrene, acrylamide, acrylonitrile and methyl methacrylate (c. 6, l. 5-11). The photosensitive layer preferably comprises plurally unsaturated photopolymerizable compounds such as divinylbenzene, diglycol diacrylates, and pentaerythritol triacrylate (c. 6, l. 29-40). The said photopolymerizable compound can be used together with a polymeric binding agent. Suitable binding agents are polystyrene, polyvinyl acetate, copolymers of acrylic acid, methacrylic acid and unsaturated dicarboxylic acids such as maleic acid. Especially suitable are the alkali soluble copolymers of methyl methacrylate and methacrylic acid (c. 7, l. 1-46),

Laridon teaches many uses of the taught invention. If the support is made of a transparent resin or glass, photosensitive layers containing dyes or pigments can be used to make transparencies. If the support is made of an opaque paper, and the photosensitive layer contains dyes or pigments, opaque color proofs can be made by washing off. If the support is made of metal a photoresist can be prepared with a photosensitive coating according to the taught invention wherein the resist can be used as an etch resist (c. 8, l. 28-38). For the production of planographic printing plates, intaglio and relief images, and printed circuits, the substrates maybe stone, paper, and metal based materials suitable for etching (c. 8, l. 39-58). In the production of miniaturized integrated electrical components, the photosensitive composition serves as a shielding pattern on a semiconductor substrate wherein the desired

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electronic properties are added by techniques such as ion implantation, electrode-less deposition, ion milling or etching (c. 8, l. 59-66). The photosensitive recording material is prepared by coating the taught photosensitive layer on a selected substrate by known coating techniques. The coating composition may comprise besides the taught ingredients, matting agents, antistatic agents, coating aid. Examples include silica particles, which meet the limitation of inorganic filler as set forth in instant claim 10. Before their application in the form of a coating these ingredients are dissolved in a low boiling solvent, which is removed by evaporation after coating (c. 9, l. 45-60). The photosensitive coating is exposed to actinic radiation whereby the exposed areas are polymerized and the unexposed portions are removed by washing with a solvent (c. 10, l. 43-68). Any source of actinic radiation can be used in the range of 200-400 nm (c.11, l. 3-15). See also claims 1, 3 and 5-9.

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laridon et al. (US 4282309 A) as applied to claims 1-10, 12-16 and 18 above. Laridon teaches many uses of the taught invention. For example if the support is made of a transparent resin or glass, photosensitive layers containing dyes or pigments can be used to make transparencies. If the support is made of an opaque paper, and the photosensitive layer contains dyes or pigments,



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opaque color proofs can be made by washing off. In the production of miniaturized integrated electrical components, the taught photosensitive composition serves as a shielding pattern on a semiconductor substrate wherein the desired electronic properties are added by techniques such as ion implantation, electrode-less deposition, ion milling or etching (c. 8, l. 59-66). One of ordinary skill in the art would have been motivated by these teachings to coat the taught composition in combination with pigment or dye onto a transparent substrate comprising an electrode in order to obtain a desired electronic component (i.e., a color filter).

#### *Response to Arguments*

14. Applicant's arguments filed June 4, 2002 have been fully considered but they are not persuasive. Applicants argue that the prior art reference of Laridon (US '309.) fails to exemplify the claimed aldoxime compound and only used ketoxime compounds. Applicants acknowledge that Laridon generically encompasses aldoxime compounds but does not actually exemplify such compounds. The examiner disagrees. Laridon clearly teaches that  $R_5$  is a hydrogen atom, a  $C_{1-2}$  alkyl group, an aryl group, or a substituted or unsubstituted acyl group. Although the said compound is not exemplified, one of ordinary skill in the art can readily envision the use of hydrogen as a suitable substituent.  $R_5$  is a hydrogen atom, a  $C_{1-2}$  alkyl group, an aryl group, or a substituted or unsubstituted acyl group. The taught invention therefore anticipates the claimed invention.

15. Applicants further assert that they have surprisingly discovered that the claimed aldoxime compounds has enhanced results. The examiner has found no comparative data proving "surprising" results over the taught prior art. The examiner maintains the rejection of record.

*Conclusion*

16. Applicant's submission of information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on February 13, 2002 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609(B)(2)(i). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

17. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvette M Clarke whose telephone number is 703-305-0589. The examiner can normally be reached on Monday-Thursday 7-5:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Baxter can be reached on 703-308-2303. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications. Any inquiry of a general nature or relating to the


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status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1193.

ymc   
August 21, 2002

  
JANET BAXTER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700